

CACTUS AND SUCCULENT JOURNAL

Of the Cactus And Succulent Society
Of America

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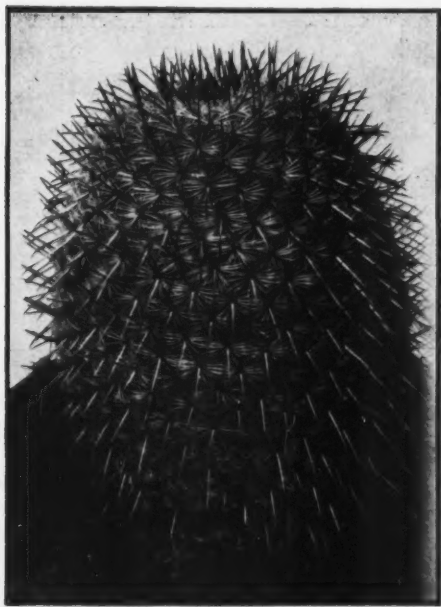


FIG. 160. *Mammillaria baageana* Pfeiffer
Plant collected by F. Schmoll, Vera Cruz, Mexico.
One of the 300 illustrations in Dr. Robert T. Craig's
new monograph on Mammillarias.



CACTUS AND SUCCULENT JOURNAL

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Vol. XVI

DECEMBER, 1944

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A New Genus in Cactaceae, <i>Lobeira</i>	E. J. Alexander	175
Notes on Haworthias.....	J. R. Brown	179
Grafting Cacti in Kansas.....	Ray Stratford	181
Cereusly Speaking.....	John E. C. Rodgers	184
Affiliate Notes.....	Chas. A. Place	186
Spine Chats.....	Ladislaus Cutak	187

AFFILIATE HELPS

We now have ready for the use of our affiliates a very interesting lecture outline illustrated by 100 Kodachrome slides of cacti and other succulents and habitat pictures from the southwestern United States and Mexico.

This can be borrowed by our affiliates without charge, other than postage, upon application to the undersigned accompanied by a deposit of ten dollars to insure due care in handling the pictures. This deposit will be returned on receipt of the lecture and slides. It is, of course, necessary for the affiliate to have a 35 mm. projector and screen for the showing of these pictures but these are usually available in most groups or can be rented from a local photographic supply house.

The lecture is in outline form which permits the addition of any amount of information and comments by the member selected to read the lecture.

Applications should be made well in advance of the date desired and they will be considered in the order received. Pictures and lecture must be mailed back the day following their use.

This set of pictures and the accompanying lecture is available also to the American Horticultural Society and their affiliates at a rental of five dollars per showing.

Also we offer as program helps to our affiliates the following articles, not illustrated, to be read at meetings. These form the basis for discussion:

1. Plant Names.....R. S. Woods
2. Genus Sedum.....Mrs. Ethel Rush
3. Euphorbias.....Maybelle Place
4. Genus Dudleya.....Chas. Place
5. Personal Tale of a Cactus Collector.....Howard Gates

These will be loaned without charge, other than postage, but must be returned immediately after use.

W. TAYLOR MARSHALL

327 N. Avenue 61, Los Angeles 42, Calif.

Our first Secretary of the Society and second President, R. E. Willis, is now President of the Los Angeles Lapidary Society. He says, "Rocks don't collect bugs," yet some of us cactus folks have seen lots of dust on rock collections and then we go out and enjoy the beautiful new growth on a lowly cactus!!!

WHAT KINDA CACTUS IZZAT? by Reg Manning, famous cartoonist of the Southwest. This 100 page book is packed with humorous cactus drawings which are based on hundreds of interesting facts. For amusement and information, this book is unique. Ideal as a gift book for those who hate or enjoy cacti. Cloth bound \$1.30 postpaid.

BINDING JOURNALS—IMPORTANT NOTICE

Binding Volume XVI of this JOURNAL will be postponed until the same green cloth that has always been used, is again available. A notice will be inserted in the JOURNAL so that all will have plenty of time to mail your magazines for binding. The index for 1944 will appear in the January, 1945, issue. Scott E. Haselton, Editor.

In Paris, I was amazed to see sidewalk displays of cacti for sale. They are more popular here than any place I have ever been. Every florist shop has a few Echinopsis and Opuntias in its windows. The people here in France seem to know how to live.

LT. GEORGE LINDSAY.

I had a rather unusual occurrence in a plant of *Gym. mihanovichii*. The plant started blooming in the usual way early in the spring and shortly thereafter it put out three tiny offsets at the base of the plant and before these offsets were as large as a pea, each one of them put out three flower buds all of which matured and bloomed except one. The picture showed a flower at the top of plant and one to the right on one of the offsets, while to the left there were two very healthy buds on another of the offsets. The other one was to the rear in the picture and the buds were much smaller. This may not be noteworthy at all but it is the first time anything like it has happened in my collection.

I wish to tell you how much I enjoyed the October issue of the JOURNAL, the article on *Astrophytum* was most informative, I find that I have quite a representative group of the genus in my collection, they are among my favorites anyway.

MRS. BERNICE MOORE, Pontiac, Mich.

These plants are keeping me alive. They show their appreciation for me despite the terrible neglect. In fact sometimes I think that my Guardian Angel takes care of them for me. A. L., Mich.

REPRESENTATIVE IN ENGLAND

W. T. Neale & Co., Franklin Road, Durrington, has been appointed to accept subscriptions to the Cactus and Succulent Journal and to carry a stock of books. This connection in England will simplify the procedure in dealing with the Cactus and Succulent Society and the publisher of cactus literature. Contact W. T. Neale and renew your interest in growing cacti and succulents. SCOTT E. HASELTON, Editor and Publisher.



FIG. 161. *Lobeira MacDougallii* sp. nov. Entire plant one-fifth natural size.

A New Genus in Cactaceae

As exploration of the cactus and succulent flora of Oaxaca and Ghiapas progresses, it appears that one surprise after another is in store for us in the new or interesting plants brought to light.

For the past six years we have been giving particular attention to the epiphyllums brought up from southern Mexico by Mr. T. MacDougall. This study is now reaching a climax, and we have clarified some of the old species and found some new ones in that interesting genus—but more of them in a later paper.

The first non-epiphyllum novelty to flower was *Pseudorhipsalis macrantba*, described in these pages in February, 1942. Our present novelty was among the first cuttings brought back in 1939, but it has since then defied all attempts to coax it into flower, whereas most of the others have proved quite amenable. It was quite unexpected, therefore, when in April of this year six buds began to develop. Their behavior was strange and they were closely watched. One morning early in June the writer



FIG. 162. *Lobeira MacDougallii* sp. nov., natural size.

received a telephone call, and upon answering, heard Mr. MacDougall's voice say, "polish up your Latin and get ready to describe a new genus." Our recalcitrant plant had at last flowered and had lived up to our expectations. There was no doubt as to a distinct genus, for nothing like this flower had ever been seen on an epiphyllum-like plant. The question, however, arose, "was it normal?" and we waited for the remainder of the buds to open. All have now finished, but the plant has refused to form fruit, although we have used pollen from *Nopalxochia*, *Epiphyllum "Ackermanii"*, and two or three species of *Epiphyllum*, any one of which has previously given us fruit when used on members of the *Epiphyllanae*. The succeeding flowers, each of which lasted three or four days,

bore out the promise of the first, but they were somewhat larger and more beautifully colored, a silky-textured mallow-purple (Ridgway). Now that all doubts have been removed the writer hastens to present to the Cactus World this truly beautiful flower which in its generic name honors the Señora Viuda de don Cristino Lobeira (Lo-vay-rah) of the Gran Hotel Español of San Cristobal Las Casas, State of Chiapas, Mexico, a great plant-lover who grew the plant in her garden from material brought to her by the native "Chamulas" from the nearby Cerro Hueitepec in token of their esteem for the lady and appreciation for her interest in flowers. The writer also wishes to thank the Señora for her gift of the cutting from which the type plant has been grown and can think of no more fitting



FIG. 163. *Lobeira MacDougallii* sp. nov., x 1.2

manner in which to show his appreciation than by dedicating the new genus to her. I herewith present:

***Lobeira* Alexander, gen. nov.**

Plantae epiphyticae ramosae inermes, ramis complanatis crassis (4-6 mm.) oblique obtuso-crenatis, areolis conspicuis brevissime lanatis; flores mediocres purpurascens-rosei ad apices crenarum nascentes; ovarium orbiculare bracteis minutis anguste ovatis in axillis lanatis; perianthii tubus sulcatus infundibuliformis limbo circa aequilongus, extus squamis numerosis ovatis squarrosis acutis; perianthii segmenta numerosa (ca. 18) late linearia acuta, patento-recurvata; stamina numerosa (ca. 100) in serieis descendentes in fauce tubi inserta, filamentis gracillimis exsertis, antheris oblongis parvis basi cordatis, thecis divergentibus; stylus robustus staminibus longior, stigmatibus 6-9 brevibus; fructus ignotus.

Lobeira Alexander, nov. gen. Epiphytic plants with unarmed branches which are complanate, thick (4-6 mm.) and obliquely obtuse-crenate, the areoles with conspicuous tufts of short, light tan-colored wool. Flowers medium-sized, diurnal, purplish-rose, arising at the apex of the crenations; ovary orbicular, with minute, narrowly ovate bracts bearing short wool in their axils; perianth tube sulcate, infundibuliform, the same length as the limb and bearing on its outer surface numerous squarrose, ovate, acute bracts the bases of which appear to become decurrent as flattened, lengthwise ridges; perianth segments numerous (about 18) broadly linear and acute, recurved-spreading; stamens numerous (about 100) inserted in several descending

series in the throat of the tube, the filaments slender and exserted, anthers oblong, small, cordate at the base, with divergent thecae; style comparatively stout, longer than the stamens, with 6-9 short stigmas.

Lobeira MacDougallii Alexander, sp. nov.

Rami oblongo-lineares 15-45 cm. longi et ultra 2-5 cm. lati, et 4-6 mm. crassi, apice obtusi, basi attenuati et subteretes, crenati, crenis 2-3 cm. longis plus minusve obliquis, prominentibus; areolae parvae brevissime lanatae; ovarium circa 1 cm. longum, squamis vix 1 mm. longis; perianthii tubus 3-3.5 cm. longus infundibuliformis prope medium 1 cm. latus, ad faucem ca. 15 mm. latus, squamis 2-5 mm. longis ovato-lanceolatis, squarrosis acutis; perianthii segmenta oblongo-lineariter acuta ca. 3-3.5 cm. longa, exteriora recurvata interiora arcuata; stamina alba 3.5 cm. longa et ultra, antheris 1.5 mm. longis; stylus albus staminibus bene longior, 5 cm. longus stigmatibus linearibus 5 mm. longis.

Lobeira MacDougallii Alexander n. sp. Branches oblong-linear, bright green, with reddish growing tips, 15-45 cm. long and 2-5 cm. wide, obtuse at the apex, tapering and subterete at the base, 4-6 mm. thick, prominently crenate, the teeth 2-3 cm. long, somewhat oblique; areoles small, with very short wool; flowers 7-8 cm. long, the perianth-spread at full expansion 6.5 cm., tube and outer perianth segments greenish-brown and glossy outside, the inner perianth segments bright purplish rose (mallow-purple—Ridgway); ovary about 1 cm. long, scales scarcely 1 mm. long; perianth-tube 3-3.5 cm. long, funnelliform, about 1 cm. in diameter near the middle and about 1.5 cm. in diameter at the throat, scales 2.5 mm. long, ovate-lanceolate, acute and squarrose; perianth segments oblong-linear, acute, 3-3.5 cm. long, the exterior ones recurved, the interior ones arcuate; stamens with white filaments 3.5 cm. long or more, the anthers 1.5 mm. long; style white, much longer than the stamens, 5 cm. long, stigmas linear, 5 mm. long.

Type obtained from a garden in San Cristobal Las Casas, State of Chiapas, Mexico, in the winter of 1938-39 and flowered in New York in June, 1944. Original plant said to have come from the nearby Cerro Hueitepec, but it has not as yet been found in its native habitat.

The relationship of *Lobeira* is somewhat obscure, for its flowers are strongly reminiscent of the flower-type represented by *Aporocactus Conzattii*, but the stems are Epiphyllum-like. Since flowers of similar construction are widely scattered throughout the subtribes of the *Cereeae*, there seems no objection to their presence in the subtribe *Epiphyllanae*, and there it appears advisable to place *Lobeira* for the present.

In the *Epiphyllanae* key, *Lobeira* will fall into the division containing *Eccremocactus* and *Nopalxochia*, and it is from those genera that it

must be differentiated.

Lobeira differs from *Eccremocactus* in having diurnal, colored flowers, prominent woolly areoles, pointed and recurved-spreading perianth-segments and tube-scales.

It differs from *Nopalxochia* in having the perianth and tube of equal length, a strongly grooved tube, and markedly funnelliform flower with the tube passing gradually into the perianth proper. Comparison of the flower photographs with the two other genera will make this difference more apparent.

E. J. ALEXANDER

New York Botanical Garden.

Field Museum of Natural History—Botany, Vol. 23, February, 1944

New Species—*Helicocereus heterodoxus*

Standl. & Steyerl.

Epiphytica plus minusve scandens, caulibus complanatis vel trigonis 3-4 cm. latis remote crenatis, areolis 2-4 cm. distantibus parvis dense tomentosis; spinae 4-8 usque ad 8 mm. longis vulgo brevioribus acicularibus fascis vel primo pallidis; flores 8-11 cm. tantum longi, tubo limbo longiore usque ad 7 cm. longo, bracteis tubi oblongis obtusissimis viridibus denticulatis, spinis gracillimis fere filiformibus laxis pallidis usque ad 1 cm. longis; segmenta interiora limbi 3.5-4.5 cm. longa obovata vel late oblonga apice late rotundata, segmentis exterioribus paulo brevioribus; stamina segmentis paulo breviora, filamentis roseis, antheris albis 3 mm. longis.—Guatemala: Dept. San Marcos: Along Río Vega between San Rafael and the northeastern portion of Volcán de Tacaná, alt. 2,500-3,000 meters, February 21, 1940, Julian A. Steyerl 36291 (type in Herb. Field Mus.); also no. 36262 from the same locality. Dept. Chimaltenango: Pendent from tree in wet forest, Las Calderas, lower slopes of Volcán de Fuego, 1,800-2,100 meters, Standley 57830; John R. Johnson 1208.

From all other species of the genus this is distinguished by the relatively long corolla tube, that of other species being much shorter than the limb. The type and one other collection are noteworthy for having complanate rather than 3-angulate stems, but other specimens placed here have the normal 3-angulate stems.

While my interest in cacti is still paramount, account of the slipping years I have to deprive myself of the pleasure that was once mine, when I climbed the mountains far and near, always with the hope that I would find some new plant, the discovery of which would cause my heart to beat a little faster.

I note that you do not sanction the use of neighborhood names for plants. Such names are only strictly local, and the use of them can only tend to confuse the nomenclature. Up and down the Rio Grande valley we have half dozen different plants called "pin-cushion" cactus, while the cackle of the "old hen and chickens" can be heard morning, noon and night on most any radio.

A time back a cactus "enthusiast" gave a new name for an *Echinocereus chloranthus*. Pointing to a close by plant, he asked, "Do you know what that thar is?" "That thar—that thar, is a *Coyote's chaw tobacco*." So if you want local names for cactus plants, help yourself to this one. C. H., Texas.

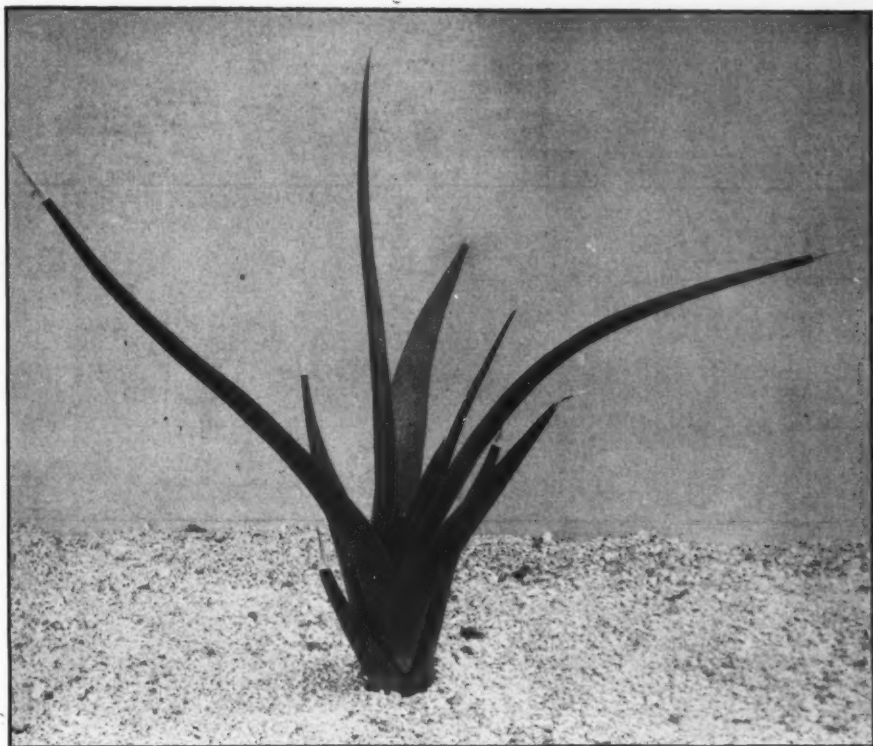


FIG. 164. *Haworthia Longiana* Poelln. approx. x 0.5

Notes on Haworthias

By J. R. BROWN

Haworthia Longiana, Poelln. in Repert. Sp. Nov. XLI (1937) 203, XLIV (1938) 213, in Cact. Journ. VI (1937) 19, in Desert Plt. Life IX (1937) 78, photo.

Plant stemless, few leaved, proliferous from the base and forming a large cluster with age.

Leaves 10-25 cm. long, to 2 cm. wide at base, erect-spreading, gradually narrowing from the somewhat ovate-deltoid base to the very slender tip, green, face of older leaves flat, in the younger concave, with a slightly raised median line, and roughened with minute concolorous tubercles, back of leaf convex, keeled in the upper part, scabrous with minute, greenish-white somewhat shining tubercles, arranged in indistinct lengthwise lines, and often confluent trans-

versely on the older leaves, the margins with a greenish-white coriaceous line, smooth or somewhat crenulately roughened.

Type locality: Cape Province, Humansdorp, Hankey Road. 1930.

Named in honor of F. R. Long of Port Elizabeth.

This *Haworthia* of the sect. *Scabrae* Berger, differs from other known spp. in this sect. by its very long and narrow leaves. It flowers in So. California during June-August.

A single plant of this *Haworthia* is shown in one of the accompanying photos, illustrating the long, widely spreading leaves, the longest leaf of this particular plant was 23 cm. in length. Another photo shows a small cluster which, with age, becomes a very tangled mass. Portions of

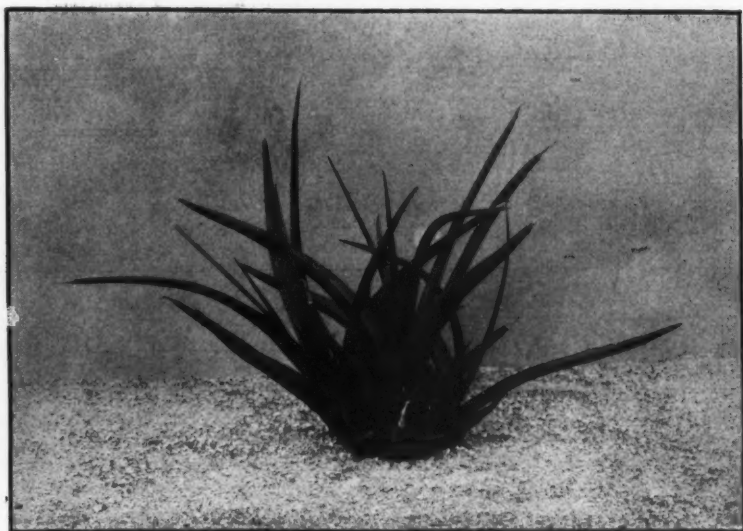


FIG. 165. *Haworthia Longiana* Poelln. a small cluster approx. x 0.25

two leaves are also shown, in both cases the back of the leaf. A, shows a part of a leaf above the base and illustrates the tiny whitish-green tubercles which are quite evident when the plant is in the growing stage, as the leaves become older the tubercles tend to lose the whitish tinge and assume the same color as the leaf as shown in B, the whitish appearance of the minute

tubercles in this case merely being reflected light. B shows the greater portion of one of the oldest leaves, the length of which was approx. 10 cm.

It can be easily surmised that the length of the leaves of this *Haworthia* can be extremely variable depending upon the shade and moisture available.

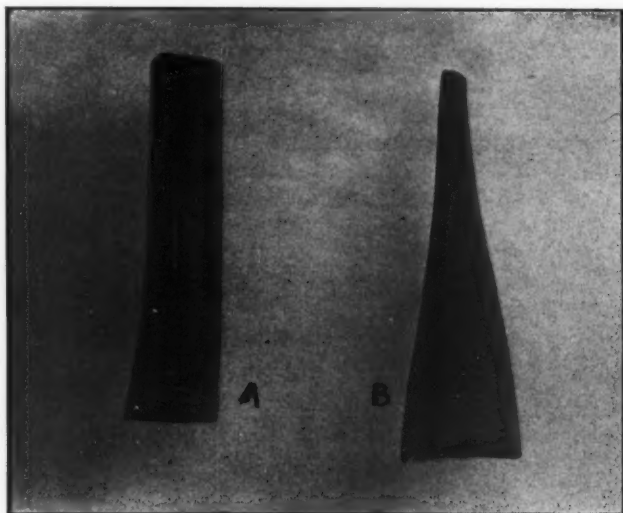


FIG. 166. *Haworthia Longiana* Poelln. back view of portions of two leaves. nat. size.

Grafting Cacti in Kansas

By RAY STRATFORD

Some of you have asked Mrs. Stratford for notes on grafting, and I, being the grafter of the family, agreed to write them. We handle her hobby from the standpoint of Art, not Science. That is, our procedure is not fixed, nor our results predictable. For that reason I can only tell what I have done, and what worked for me and what didn't.

Cacti seem to be an extremely adaptable group of plants, but still definitely subject to some rules. For instance, we get *Selenicereus macdonaldiae* from California and it is heavy, sturdy stock, that for several types of scions I prefer to any other. But in no way I have yet tried can I make the new growth, of which there is plenty, make heavy enough growth to use. *Cereus* stock is preferred (*Cereus peruvianus*) by many Californians, but here we cannot rest the scion properly without dehydrating the stock, from which it will not recover. It also appears to be much more sensitive to cold as the stock of a graft than alone. For our heavier grafts I find *Trichocereus spachianus* very good from the standpoint of compatibility, and production of material, but here again is a drawback; shortly after the graft is made, the *T. spachianus* begins to lose chlorophyll, and in the course of a year or two, becomes unsightly.

I have recently used *Echinopsis* with good success, and the advantage of reaching sufficient size of cut section for scions as large as 1½ in. without needing large pots. We have but very few plants in six-inch pots, and none in larger, most of them being Mammillarias, Parodias, Rebutias, and other small types that fortunately can get by with small stocks. At the Missouri Botanical Gardens we found enormous *Echinopsis*, and at Pirtle's an 8-inch (thick) *Cereus* carrying clusters of many offsets of the original scion, but that requires permanent planting in the ground, so that is out for most of us. I have also used *Pachycereus marginatus* with very good luck. I mention luck because one of Audrey's most beautiful plants is an *Euphorbia lanata* that, as a small plant three years ago last winter, decided to pass out by rotting at the base. By the time she discovered the condition only the tip was sound. This, however, was in growth, as you may have found it the peculiar ability of a cactus to do while rotting at the base. The only thing she had at the time in

growth, and even looking like grafting stock was a small *P. marginatus*, a regular collection plant. Well there the little fellow sits or sets, feeding that big *E. lanata*, but now almost buried by it.

For us, *Notocactus baselbergii* will not root so it goes on *T. spachianus*. In this case the tendency to discolor does not bother so much because the tendency of *N. baselbergii* to pile pups one on top of another like doughnuts tossed on a stick, and thereby itself become unsightly, let us throw the whole mess away and start over. *Wilcoxia senilis* on its own roots is a sad, dead looking, slow growing plant that never blooms, but on *S. macdonaldiae* it is a beauty and blooms every year, (graft a tip and when it gets about an inch high destroy the growth center so it will make a ring of branches). *Chamaecereus silvestrii aurea*, the yellow peanut, must be grafted because it is an albino sport, having no chlorophyll, and thus unable to feed itself. It's stock must be large enough to take care of that. Gus Bantel, propagator for the Seiloff Floral Company, (wholesalers of cactus at St. Louis) and exploring partner of Ladislaus Cutak, explained that to us, and expressed his disgust with it for its difficulty. We have kept one or two though, for its novelty. In the case of many species, grafting will bring a plant to blooming size with the saving of years, or will result in much more bloom.

Now for some of the reasons for not grafting. Larger plants take larger pots and they in turn, more room. In most cases a grafted plant is not as pretty (to me), and in lots of cases, unsightly. Sometimes the rapid growth of the scion exhausts the stock, leaving one with a nice plant that will not root, and would require too much space to give it a new stock big enough. To me, any plant occupying space it doesn't pay for is a weed, and mere bulk; it is out of place in the space most of us can give to a cactus collection. In several cases we have speeded up plants by grafting, only to find that the cut necessary to remove from the stock was so large that it did not scar properly, and the plant was lost after all, or that it would not root in our climate or conditions and we lost all the benefits of grafting. At present I graft only "on order" having gone through the stage of putting anything I

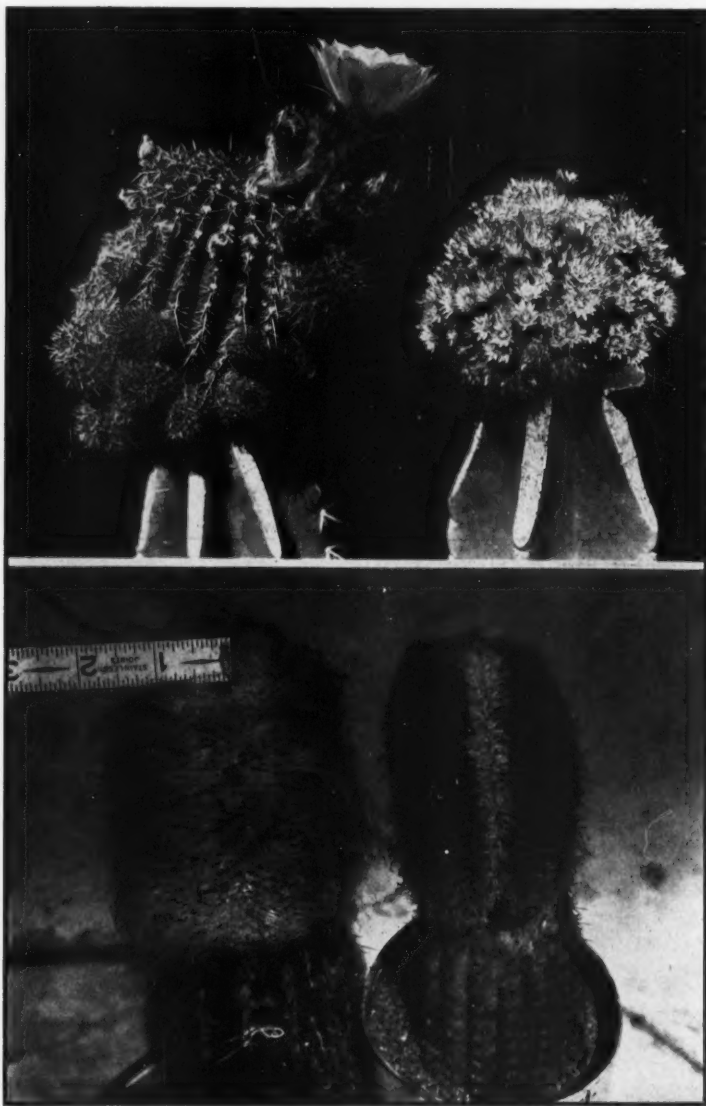


FIG. 167. (Above) Grafts on *Cereus* stock. On the left is *Lobivia aurea* and on the right a clustered *Mammillaria* in flower. The lower picture shows two forms of *Cephalocereus senilis* (Old Man) crests—the long and short haired types; both crests are grafted on *Trichocereus spachianus*. Grafts by Frank Mark. Haselton photo.

could get my hands on, on to anything else ditto, even to *Aporocactus flagelliformis*, *Rebutia schumanniana*, *Chamaecereus silvestrii*, both regular and *aurea*, and *Wilcoxia poselgeri* all on one *Pereskia aculeata* at one time. As there are well over 800 plants in the two collections here, the other one being handled under very difficult conditions, there is still enough

saving and speeding work to give me diversion.

So much for the "why and why not," now, if you are interested, for the how. The gadgets I have accumulated are: (1) spine tweezers (for after the grafting is done, and to borrow spines from the *Opuntia subulata* or *Monvillea cavendishii* to stick the scion while I tie it); (2) half

a Gillette razor blade set in a handle for fine cutting that must be done without pressure; (3) an old knife ground down to nearly the long section of an ice pick, and sharpened on both edges, with which I can get in between almost any offset and plant and remove the offset without injury to the plant; (4) dime store kitchen tongs; (5) knife with a long thin blade of regular width for making cuts except on very small scions (very sharp); (6) assorted rubber bands; not wide; (7) a spool of pre-war elastic thread; (8) What I call saddles, a small oval piece of rubber or leather with a hole in the middle and one in each end; in the latter of which is tied the two ends of a short piece of elastic thread. These are used for holding down tiny scions that a rubber band would mash, or a single thread cut. I have several of these with different size center holes and thread loops to accommodate different sizes of scions and size of pots.

For any top graft, I cut off the top of the stock, then trim around the cut, bevelling the edge to get all spines out of the way, and to prevent a cupping of the top as the exposed edge loses moisture. Next prepare the scion and decide where to cut it so as to have it about fit the stock. Then with the sharp knife, and a drawing motion as in shaving with an old-fashioned razor, and making only one non-stop motion, quickly take a thin slice off the top of the stock and one from the bottom of the scion, and place scion on stock, centering scion and thereafter not moving it if it can be prevented. This is to insure a wet contact, as an air pocket will not unite. Last, secure the scion if very small, with a saddle, or with one or two bands if it is as large as 1/2-inch, spines included. This may be done by putting band around pot and all, or if your stock is an unrooted cut, just pass the band under the base of it. It can then be cured and rooted just as if there were no graft there. In case of a woolly or heavy spined scion, I also bevel the scion, so that no spines will prevent a tight fit. If an offset is being grafted, I prefer to cut about the middle as the base is likely to be unsightly, and the taller the scion, the more danger of it tipping when it settles slightly, as it will as the exposed cut tissue dehydrates.

For *Zygocactus* and sometimes for slender cylindrical scions, I use a cleft graft. For this I do not bevel the stock unless it is heavy, such as *T. spachianus*, in which case the cleft must be trimmed at the sides to drain, or it may cause rot. Cut the cleft with two single motions and the scion as nearly as exact fit as possible; fit together, and while exerting slight downward pressure on the scion, pin together with two or

more clean spines, then wind elastic thread around without much tension and tie. The thread may be taken off after three or four days, and the spines snapped off flush with the stock when the union is complete; they will be absorbed, or covered, and not show.

One of the easiest, and also sloppiest types is the side graft, which I use as little as possible because I like to make a plant look as natural as I can, and in a side graft there is so much dead tissue and scar showing after it is united. Just whack off both scion and stock at approximately the same angle, pin them together with spines and tie with elastic. The edges will turn up and die everywhere that it does not make a perfect fit, but there are cases where one cannot make a good cleft or top graft, or where a successful graft is more important than a neat one. Most of us are not concerned with commercial propagation in which the main object is the production of many new plants regardless of appearance of the parent graft, but only in keeping our collection presentable and of size our housing space will permit.

In grafting a heavy scion of cylindrical type, one may pin it down with several spines to help prevent tipping, and secure with rubber bands, or just put in plenty of spines, snapping them off after the union is completed. In using the saddle, the hole in the center lets the scion stick its nose through enough not to hurt the tender growth tip. In attaching this, or a band, place the band under the pot, set the pot down, and, holding the pot down with the third and fourth fingers, center the device over the scion. It is quite important that the tension on both sides of the scion be about the same, otherwise the scion may tip as it settles, resulting in a partial union, or the scion tipping off, which latter usually happens when one is not there to replace it. If you place the retainer over the scion first, you are quite likely to snap the scion off on the floor, get it dirty, and have to re-cut. If you have had to cut pretty short anyway, you may not have enough substance left after a re-cut to hold shape, and stand up until it can unite. I have read that one can place a tiny scion on a stock without securing it, and it will work. Maybe; I can only say that it never has with me—maybe it will for you.

I once grafted, for a friend here, a *Neoportia reichii* that had stood in her rooting bed without doing anything, until it was so flabby I thought I would cut it to nothing before I got a smooth surface on it. I finally got it smooth, though, it made as quick and good a union as I ever got, and was turgid in a matter of days. Now over two years old, it is a nice plant, and blooms well. Sometimes after the graft was

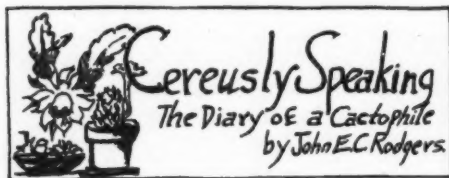
made the lady read that this species is extremely hard to graft, so she gave the plant to us as a souvenir.

I have made some neat grafts by pointing the tip of a *Selenicereus macdonaldiae* stock like a pencil, cutting a hole with my point-knife in the base of the scion to fit, and joining. The union is then completely hidden, and neat, especially if offsets with small attachment are used, and the base not cut off. Yes, there is a drawback here, too. Some of the stocks were exhausted, some frozen, without hurting the scion, and there was that dead stock extending up into the scion so that it could not be rooted, and much of it was lost reaching sound tissue for re-grafting. A *Zygocactus* scion of one or two joints will branch nicely, but if you want an *Aporocactus* or other cylindrical type to branch heavily, use a center cut about three-fourths of an inch long, or better still, a tip,

cutting the end off of it after it is united and growing well. That way all the urge to grow is thrown into the top ring of areoles at one time, resulting in more offsets starting. If a tip is used, and not cut, it will go ahead with its single growth, and branch when it gets good and ready, and plant will be top-heavy if upright, and like a mule's tail if pendant.

The spineless *Opuntias* are supposed to be good stock (also *O. subulata*) but we just have not room inside, nor climate outside for them. Mr. Bantel likes a tall *O. subulata* for *Zygocactus*, and they really look nice, if you have room (his were about two feet tall and the *Zygos* hung about twelve or fourteen inches).

I have tried only to set down my own experiences, not to make positive rules, which would not fit all parts of the country because of climatic and housing differences.



NOVEMBER CULTURE

Echinocactanae—Genus 2, 5, and 7 in M. & B.

November 1. *Ariocarpus* (Genus 2) *fissuratus* still green from its summer of full sunshine and infrequent waterings. Berries from 3 blooms in late August (18-25) not above felted crown but they're there. Usually appear, apple green, during February or March. 10 tubercled stem I raised from seed has now lost its four radiating spine decorations at the ends of the nipples when young. Slow grower. Had fine tubercles before I'd believe it was an *A. fissuratus*, Jr.. Plants top-shaped. Like gravelly soil with plenty of crushed limestone, old plaster or agricultural lime. Use a layer of coarse sand under body of plant and up to former soil level. Nick name, "Living Rock" helps to visualize right setting—put gray pieces of limestone about plant which adds to its dramatic qualities. One of the first to be collected wild and in 5 and 10's whereabouts.

November 5. *A. kotschoubeyanus* thrives in standard soil mixture, 1/2 loam, 1/4 sand, 1/4 gravel plus liberal amount of old plaster size of peas. Lays close to soil which gives it a thin look but its tap root is the danger point. Loses its vitality and plant eventually dies. Layer of sand under plant discourages bacterial infections as well as the chance of overwatering. Bloom deeper shade of rose-pink or purple than *A. fissuratus*. Mr. Henry C. Shetrone, Columbus, Ohio, has been very successful with this *Ariocarpus* in pot with other plants. Plant might pass for a small *A. fissuratus* but I doubt it if you've ever seen it pictured or in a collection—it's tops. *Leuchtenbergia principis* with a 10-inch spread now resting on shelf two feet from glass of roof. Water once a week from late September to June when buds appear at ends of last year's

four-sided stems. During its growing season it gets water whenever other plants get it. Likes a mixture of powdered slate and limestone for a top dressing over a loose gravelly loam soil. I work this dressing into soil. Plant is in a 8-inch bulb pot. Root system is not extensive. Stem of my plant is 4 1/2 inches from the soil level to the first of the "leaves." Most cactophiles have only seen seedlings of this species. Bought it from Eugene Ziegler in August, 1940. Had three blooms open between August 18 to 25.

November 7. *Ariocarpus retusus* offset is growing but still too small to bloom. Has yellow slightly bulbous taproot. Grows best for me in a sandy loam soil with perfect drainage. Gets the powdered slate and limestone dressing which adds that something to the better health of a difficult plant to grow. Use pieces of limestone for comparison of mimicry habits of growth in native habitat. *A. furfuraceus* is a round-lipped, round tubercled plant. I bought mine on a Woolworth field trip. B. & R. listed only *A. fissuratus*. When M. & B. came I found it was given generic rank. Flower is almost white it is such a pale pink. Any peculiarity in a given plant within a group gets me."

November 10. *Lophophora williamsii* three generations strong growing in my greenhouse. One is a two-inch collected specimen with a broken tap-root growing in a 2 1/2-inch pot with not more than two table-spoons of soil. Perfectly happy—blooms regularly, grows, sets fruit and develops seed. A 2 1/2-inch seedling of my first plant bought in 1932 is resting after a four month blooming period. The crown at present is a mass of dried berries, newly developing fruits and brownish felt. Ate two berries to see if I'd get my optic nerves color conscious that dried body of plant gives but no such luck. Not one penny was accepted for this advertisement, so skip it. It's not the berries, brother, it's the "Peyote" dried.

November 17. Single tubercle of *Ariocarpus trigonus* still alive. Stays plump. Eugene Ziegler's long since dead. We found that there must be part of the plant with the tubercle before another plant can be grown. Now my tubercle is interesting for its length of survival only and its bulbous roots.

November 20. *Lophophora tiegleri* Werd. (pg. 138

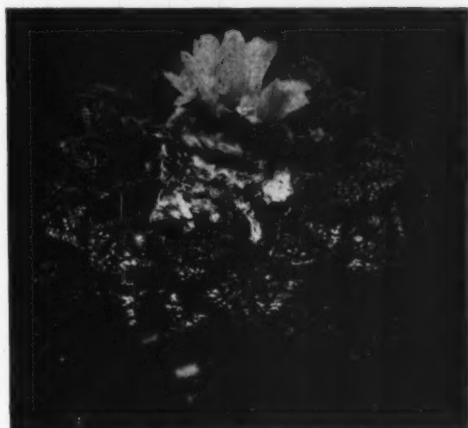


FIG. 168. *Ariocarpus fissuratus* from B. & R.

M. & B.) in my collection, a gift from Eugene Ziegler, is evidently Helia Bravo's way of spelling Gene's name with a "T." He sent a description to Schmoll in Mexico of this variety. The cristate is much prettier than the *L. williamsii* crest. My Lophophoras receive a yearly top dressing of powdered chalk (school teacherish economy when chalk gets to wearing down my finger nails). Have a four-inch cluster with six heads from a single root. Does not have the many nipples of regular type nor the felted areoles on sides and at center of my other plant. Buds can be seen when they begin forming, petals narrow, bloom funnel-shaped, fruits pink. Plant dark green, however. B. & R. say single or proliferous.

November 25. Franklyn Williams, our social member, brought me a 3½-inch *L. williamsii* which he wants wintered while he's in Florida soaking up sunshine. Heavy tap-root with a few fibrous smaller roots. Likes it because of its name and the ease with which it grows.

November 30. M. & B. in the Index list 10 under *Ariocarpus* and one variety, while three species are listed under *Lophophora*. The best pictures of the *Ariocarpus* I have seen are on page 31 of the JOURNAL, Vol. XV, No. 3.

DECEMBER

Wilcoxia (Genus 17) M. & B. state, "A genus of 'pencil-like' stemmed cacti with clusters of dahlia-like roots. Branch tree-like, day blooming, large flowers funnel-shaped of red, pink and purple. Ovary and tube as well as the fruit have spines and bristles or wool in the areoles. 5 species are known. Found in southwestern United States and Mexico. Have large tubers on the roots. Require ample pot room and should be planted in loose soil that is not too rich. Water sparingly even during growing season. Grows best grafted on *Selenicereus* (*pteranthus*) or *Cereus* (*peruvianus*) seedlings or the Burbank Spineless *Opuntia*. Rooted cuttings often form the tubers common to the genus. All varieties as well as species are valuable additions to any collection. Best to buy grafted plants if blooms are expected."

December 1. *Wilcoxia schmollii* (*senilis*), called "Lamb's Tails" by collectors hereabouts, growing as graft and on own roots. Pretty but doesn't last long unless species are grafted frequently on new vigorous stocks (*Pereskia*, *Cereus peruvianus* or *Selenicereus pteranthus*). Buds begin appearing in January. White

fuzzy places near ends but below new growth. Blooms in late February or early March. Flowers purplish-pink with darker purple overlay. Stays open 7 days at 50°-55° in my greenhouse.

December 6. Examined *Wilcoxia poselgerii* with 4 main stems—4 offsets—grafted on *Cereus peruvianus* seedling. Original plant from which this cutting was taken has one main stem with two offsets. Have three ungrafted plants which are slow growers. Collectors scarcely ever see them among the large fat columnar and ballophyte cacti. Usually colorless in winter and only new growth looks alive on dull green wrinkled stems.

December 10. *Wilcoxia schmollii* var. *negriseta* now 6 inches long and pendant. New stem from base, two inches long. Hasn't bloomed yet. Attractive because of the black hairs mixed with the gray ones. Bought rooted cutting three years ago. Has developed tubers typical of the genus. Keep it in small pot with excellent drainage.

December 17. *Wilcoxia viperina*, velvety stemmed, fat greenish-gray, now one of the healthiest cacti in my collection. Bought 6-inch rooted cutting in 1936. Now has three 14-inch stems from original cutting. Repotted it three years ago for the second time. Did not disturb ball of soil about roots but small dahlia-like tubers were exposed where dirt had fallen away. Has not bloomed so far. B. & R. say bloom is red. As mine is the only one in collections about here, we're all waiting.

December 23. Buds appearing on *W. poselgerii* will bloom by middle of February in temperature I keep it (50°-55° hard coal heat). Do not begin to water the *Wilcoxias* more than once a week until blooms are over and growth starts. Early growth means aborted buds which stay as white tufts of spines for several years.

December 27. Spoke too soon, *W. schmollii* which I reported Dec. 1. usually buds in January, is budded. Grafted. Perhaps *W. poselgerii* and *schmollii* will bloom and I can cross pollinate them. If seeds are too difficult for me to grow might give me view of fruit and check up on seed color, etc. Bloom, fruit, seed equals botanical plate.

December 31. Looked over catalogues I have had for several years back. Knickerbocker lists *W. australis*, *poselgerii*, *senilis* (*schmollii*), *stricta*, *tamaulipensis* and *viperina*. Six in all and grafted. Priced from 25 to 50 cents. Good chance to get this interesting group, eh!

Well, Scott, and readers, I know from letters, gifts and encouragement this ends the third year of "Cereusly Speaking." A fourth year will start in January, 1945. I wish all of you a Merry Christmas and a Happy New Year. I plan to combine more succulent information in my 1945 column, as I find your letters invariably mention your other loves beside cacti.

JOHN E. RODGERS, *Diarist*

By grace of Scott Haselton and my fellow cactophiles.
1220 West 8th Street
Lorain, Ohio.

PRE-PUBLICATION OFFER TO SOCIETY MEMBERS

Soon after the first of the year Dr. R. T. Craig's monograph on Mammillarias will be ready for distribution. This volume of about 400 pages will be bound in heavy buckram and the same size as the smaller edition of the Britton and Rose Reprint. There are 236 species fully described and illustrated with 300 photographs. An ideal Christmas gift; we will supply Gift Certificates. Price \$7.50 cash with order. Postage in U. S. A. 25c, foreign 50c. ABBEY GARDEN PRESS, Box 101, Pasadena 16, California.

AFFILIATE NOTES

Please mail your Affiliate Notes to C. A. Place, Rt. 1, Box 388T, La Canada, Calif.

The Cactus and Succulent Society of America, Inc., wishes to extend Christmas Greetings to all its Affiliates and to each individual member thereof. May each cactus bring forth myriad flowers, may each storm be confined to the slightest of showers, may each pest that crawls and each pest that flies, meet such a blast, that it withers and dies. This is our wish right down to the letter, we hope it will do, 'till we find one better.

Mr. C. L. Wiese (Pres.) writes:

"The Oklahoma Cactus and Succulent Society of Oklahoma, on Oct. 10th, was favored by Mrs. Winnie E. Jones, with an exceptional educational treatise on her favorite group 'Liliaceae.' Our Club voted to repeat its 1943 venture to furnish dish gardens for the soldiers in our local base hospitals. Disheartening news struck Oklahoma City in a fire which destroyed our Municipal Greenhouse that resulted in the destruction of an attractive cactus and succulent collection sponsored by our Society. 'Rebuild' is the answer—if and when."

Rebuild Surely! I'm sure we would all like to help.

Mrs. Margaret Radden (Cor. Sec.) writes:

"The Cactus and Succulent Club of Chicago held its Aug. 8th and Sept. 12th meetings in the Gold Dome at Garfield Park. Aug. 8th, Mrs. Akins and Mrs. Radden had the pleasure of a visit from our Round Robin, Miss Violet Munger, a teacher of the Santo Domingo Day School, Bernalillo, New Mexico, hope she will visit us often. Oct. 10th, we met at the home of Mrs. H. B. Reth."

Thank you Mrs. Radden, glad you are interested in the Round Robins.

Mrs. Ethel Rush (D.R.V.P.) writes:

"The Los Angeles Cactus and Succulent Society met Sunday, Nov. 5th, at the home of the Abercrombie's in Huntington Park. Being one of those rainy days so seldom found in Sunny California, in fact our first seasonal storm, the crowd was not large but very enthusiastic. The genus for discussion was *Senecio* and a number of good articles were brought in about these plants and quite a round table discussion ensued. Also each of us discussed our dreams of a bigger and better garden, if and when such a thing is possible."

No rain, no water; no water, no garden.

Mrs. Harriet S. Billard (of the R. R. Affiliates) writes:

"The El Paso Rock and Garden Club lives in what is called the cactus paradise. The *Opuntias* are everywhere, the *Ocotillo* and *Cholla* come right up to the city limits. A few years ago we could go cactus hunting within a half mile, to a mile of our own door step. *Escobaria sneedii*, which is very rare, is found only on Mount Franklin. It grows in large clusters and the tubercles are so small that a fifty-cent piece sometimes will cover a half dozen tubercles. Also we have barrel cactus (*Ferocactus wislizenii*) which grows quite large, some weigh about thirty pounds. *Echinocereus stramineus* covers a whole side of the mountain. It loves the dry mountain side and one bunch will be several feet across. *Echinocereus rosei* is quite a favorite with the Club. The clusters will have as many as eighteen joints. The joints are as big around as the upper arm and ten to twelve inches long. One of these in bloom is beautiful and especially so as you come upon it in the desert."

"Notes" like the above are always in order.

From the Cactus Digest, Henry Shaw Cactus Society, "Cactographs" by Ladislaus Cutak:

"I would like to bring to your attention a curious 'living rock,' type of cactus, which still is rather rare in collections. It is the Mexican *Obregonia denegri*, with which I first became acquainted seven years ago. You won't find it listed in Britton and Rose's 'Cactaceae,' because the plant was not discovered until after the publication of this monograph. An enthusiastic Bohemian cactus hunter, by the name of A. V. Fric, of Czechoslovakia, came across this interesting vegetable oddity while he was collecting cacti in the State of Tamaulipas in 1923. Subsequently, he honored the President of Mexico, by imparting the name *Obregonia* to his new find. The genus is monotypic, which means that it is represented by a single species. In relationship, it is close to the *Strombocactus* and *Ariocarpus*. The lower, or underground, portion of *Obregonia denegri* is turnip-like, while the upper part is flat, about three inches wide, covered with dull, grayish green, leaf-like, triangular tubercles. The hard tubercles are thick, keeled on the back and their tips bent over, about a half inch or less long and $\frac{3}{4}$ of an inch wide at the base. Areoles are borne at the tips of the tubercles and include wool and usually two to four blunt, bristly spines up to $\frac{3}{8}$ of an inch long. In age, the wool and spines usually disappear and the tips dry up. The flowers arise from a woolly crown and are white in color. The perianth-segments are narrow and few in number, the flower tube and ovary naked. The fruit is entirely hidden in the woolly crown, but it gradually pushes out as it matures. It is white, fleshy, $\frac{3}{8}$ of an inch long and the dried floral segments persist on it. The seeds are black and tiny, numbering about 35 for each pod. If the plants are kept dry and in full sunshine, the tubercles have a tendency to turn pinkish purple."

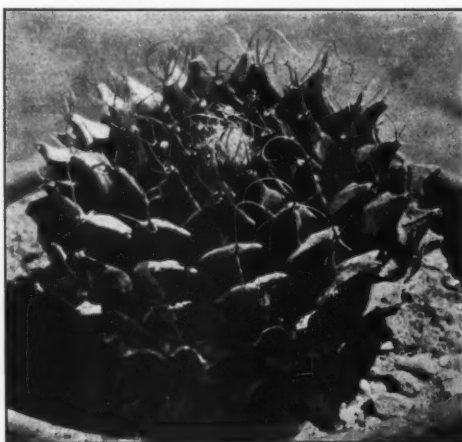


FIG. 169. *Obregonia denegri* from M. & B.

Mary Lee Rose (Editor of Heart of America Bulletin)

"The October meeting of the Heart of America Cactus Club was held at the home of Mr. and Mrs. Espenlaub. A paper on Mammillarias by Mr. Barthel was read by Mr. Espenlaub as Mr. Barthel was unable to attend the meeting. In the true or false test, Mr. Lewis won the prize, *Euphorbia horrida* with off-sets. Mr. Espenlaub showed us a few of his colored movies and I'm sure we all enjoyed them, there was one in particular of Old Mexico which was very colorful."



SPINE CHATS

LADISLAUS CUTAK



The island of Leyte, where the American invasion of the Philippines commenced a few weeks ago, incidentally was the first island of the group to receive the name *Filipinas*, which afterwards was extended to the entire archipelago. The credit goes to Villalobos, commander of the third expedition in 1543, who did honor to Philip, the crown prince of Spain at that time. The flora of the Philippines, because of the abundance of rain and warmth, is very rich, which likewise has been increased by the introduction of many species of economic or ornamental value from other tropical countries, many of which have become spontaneous and thoroughly naturalized.

I know that many of you readers will be surprised to learn that a number of asclepiadaceous succulents are endemic to these Far East islands. Most of the succulent *Asclepiadaceae* in the Philippines are vines, forming tangles upon high trees, twining and rambling over thickets and festooning branches of lower trees or climbing along tree trunks from the ground up. The majority of them have thick and heavy leaves, especially the Hoyas and Dischidias. About thirty species of *Hoya*, the beautiful wax plant, are native to the Islands, most of them growing on the large island of Luzon or such lesser isles as Mindoro, Panay and others where there is a definite wet and dry season. Of course, very few of these Hoyas are in cultivation, being mostly known in herbaria, but they should be introduced to succulent plant enthusiasts. On Leyte and Samar, at least two or three species are known to exist, being *Hoya leytenensis*, *H. meliflua*, and *H. imbricata* var. *basiscordata*. The first was discovered in 1906 by A. D. E. Elmer crawling along small tree stems and branches near the sea level at Palo. It bears small dark or dull yellow flowers in umbels. The second is a more rigidly branched and suffrutescent plant which usually overhangs cliffs or rock ledges along creeks and rivers; while the last is unique in that ants live in symbiotic relation with the plant. In thickets and ravines on Luzon and elsewhere *Ceropegia Cumingiana*, *C. Merrillii* and *Sarcostemma Brunonianum* grow wild. *Sedum australe* is the only stonecrop endemic in the Philippines, but there are two or three other crassulaceous members which have been introduced, including the pan-tropic *Bryophyllum pinatum*, *Kalanchoe laciniata* and *K. spatulata*. Other introduced plants are cacti and spurges like *Acanthocereus pentagonus*, *Cereus hexagonus*, *Hylocereus undatus*, *Nopalea cochenillifera*, *Opuntia monacantha*, *Euphorbia nerifolia*, *E. splendens*, *E. trigona* and *E. Tirucalli* which can be seen in gardens or planted about the dwellings.

In 1937 and 1938 Dr. A. C. Smith collected in British Guiana and adjacent northern Brazil. Something like 1600 field numbers were obtained and among these were three new and noteworthy cacti which also have been overlooked in current cactus handbooks and manuals. Mr. E. J. Alexander of the New York Botanical Garden made the determinations for Dr. Smith in Lloydia (September 1939). The new cacti were collected on rock ledges in dense forest on the northwestern slopes of Kanuku Mountains at an altitude of about 1000 ft. As far as I can ascertain,

none of them are in cultivation as yet, but would be welcomed so that their relationships could be more closely studied. The first discovery was *Cereus longiflorus*, a torch cactus with exceptionally long flowers that measure nearly a foot long; the second was *Cephalocereus kanukuensis*, an unbranched columnar cactus with numerous dull orange-brown to gray spines and nocturnal white flowers; and the third was *Cactus Smithii*, a melon cactus with reddish-brown spines, a white cephalium and small rose-pink flowers.

Apworthia Fardeniana is a provisional name for a bi-generic hybrid between *Apicra Skinneri* (seed parent) and *Haworthia caespitosa* (pollen parent) which has arisen in Mr. R. S. Farden's collection in England. I am not certain whether Dr. Karl von Poellnitz has really published this name to make it authentic, for scientific journals of enemy countries are not coming through owing to the war, but a mention of it is in order. We must remember that botanists in alien countries still continue their scientific studies even though their technical journals are not now available to us until after the war. Mr. Farden has collected all the available *Haworthias* that could be obtained and kept full notes of all the known species, supplementing the published descriptions and illustrations by records of the specimens in his own collection. Failing eyesight now prevents him from carrying on the work longer, so he has presented his valuable manuscript material, contained in five volumes, to the Lindley Library.

With the cooperation of friends, Mr. and Mrs. Maurice A. Burlinson of Tucson, Arizona, have been able to supply the veterans in the army base hospital at Davis-Monthan Field with living succulents. It all started last winter with spare books and magazines, to which flowers were added, but when the great summer heat destroyed the flowers in the Burlinson garden in June, our friends wondered whether the patients might not like living plants instead. Needless to say the idea worked and now 2 to 4 pots of succulents are delivered weekly to the hospital and the men enjoy the gifts immensely, especially those that must stay hospitalized for a long time. The disabled veterans are particularly fond of fast-growing species, especially such that propagate in an interesting way as the *Bryophyllums*, and for this reason at least one of these is included in each pot that is donated. Aloes, apicras, crassulas, haworthias, kalanchoes, kleinias, mesembrys, sansevierias, sedums and stapelias are the succulents generally distributed. Since pots are now hard to get, various kinds of cans, punctured for drainage, are utilized. I thought this kind gesture on the part of the Burlinsons and their friends deserved mention and so am passing it along to you in case you might want to start a similar project and bring cheer to our many boys who have become incapacitated by the war.

To all my Cactus Friends: May the spiritual beauty of Christmas bring choicest blessings to you and the Peace and the Joy of God's guidance make your New Year a happy one, too!

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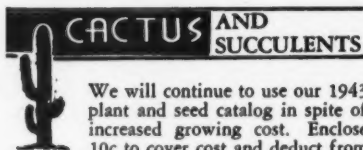
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